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ARIZONA LABOR MARKET INFORMATION NEWSLETTER

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Unemployment Rate

Seasonally Adjusted
December*

ARIZONA	5.7%
Maricopa Co.	4.9%
Pima Co.	4.7%
UNITED STATES	5.8%

Consumer Price Index

National-November 1987
1967 - Base Year

Wage Earner/Clerical Worker - 340.4
% Chg. Yr. Ago 4.6

All Urban - 345.8
% Chg. Yr. Ago 4.5

Phoenix-3rd Qtr. 1987
1977 - Base Year

All Urban - 201.7
% Chg. Yr. Ago 4.1

Tucson-3rd Qtr. 1987
1st Qtr. 1983 - Base Qtr.

All Urban - 120.6
% Chg. Yr. Ago 3.7

* Preliminary

The Growing Temporary Help Industry

We often hear that our economy is becoming more service-oriented. But while the services industry in Arizona grew by about 53 percent between the second quarter of 1982 and the second quarter of 1987, one component of that industrial group grew by almost 183 percent. That component was temporary help supply services.

Even though employment within temporary help supply services accounts for only 1.2 percent of total employment covered by Unemployment Insurance (UI) in the state, this segment is one of the fastest growing industries. (The Unemployment Insurance law covers about 98 percent of all wage and salary employment.) During the last five years, while total UI-covered employment grew by 34.1 percent, temporary employment grew by more than five times that rate.

Employment in the temporary help industry is reflected in changing business conditions over the years. It increased 25.3 percent from the second quarter of 1978 to the second quarter of 1979, slowed as the economy was about to enter the 1981-82 recession, but grew faster as the recession deepened. Growth continued at phenomenal rates until the economy was well into recovery. Within the last year of available data, the rate of temporary employment growth again picked up as overall employment growth in Arizona slowed. Employment in the temporary help industry was up to 17,174 in the second quarter of 1987.

Arizona Department of Economic Security
— Moving People Toward Self-Sufficiency

Table of Contents

The Growing Temporary Help Industry . . 1
The Arizona Labor Force in December . . 8
Arizona Labor Force Statistics 10
LMI Publications--Hot Off the Press . . 15
New Developments 15

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Growth in the temporary employment industry in Arizona has come from increasing numbers of establishments in the industry as well as from increasing establishment size. The number of reporting units in the industry rose from 54 in the second quarter of 1977 to 99 in 1982 and 176 in 1987. That represents almost 226 percent growth over the ten-year period. The average number of employees per firm in 1977 was 72. The average actually went down to 61 in 1982, but reached 98 in 1987. The increase in number of firms is largely attributed to low barriers to entry and relatively low start-up costs.

The 1972 Standard Industrial Classification (SIC) manual defines "temporary help supply services" (SIC 7362) as services provided by establishments primarily engaged in supplying temporary help, except agricultural, on a contract basis to other businesses. The help supplied is under the direct or general supervision of the business to which the help is furnished; however, the help is always on the payroll of the supplying establishment.

Other firms that supply workers to businesses on a contract or fee basis include employee leasing firms (SIC 7369) and companies that provide services such as managerial (SIC 7392), janitorial (SIC 7349), or guard (SIC 7393). These jobs are not temporary and, except for employee leasing, the workers are supervised by the supplying firm instead of the customer.

Temporary help firms recruit and screen applicants, check references, administer tests, and sometimes provide training. They have full responsibility as the employer as they hire and fire, issue paychecks, withhold payroll taxes, make required contributions to programs such as Social Security, and are liable under laws concerning health and safety of workers and equal employment opportunities. The temporary employment firm charges an hourly rate equal to the worker's wage plus the firm's markup for its service.

Temporary help firms usually specialize in an office, industrial, medical, or engineering and technical market. Some suppliers of office help also supply industrial workers, while those in the other markets are less likely to cross into another field. Nevertheless, some very large firms have separate divisions that operate in each market.

The National Association of Temporary Services reports that office workers account for 65 percent of all temporary jobs, technical and professional for 14 percent, medical for nearly 12 percent, and industrial for 9 percent.

Among the largest users of temporaries in the office market are companies in services; wholesale and retail trade; manufacturing; and finance, insurance, and real estate. Employees are most likely to be secretaries, typists, receptionists, computer operators, general office clerks, accountants, and sales workers. Many office jobs are easily filled by temporary workers because the basic skills needed for a particular occupation do not vary significantly among employers.

Major users of temporary help in the industrial market are firms in wholesale and retail trade, construction, manufacturing, and transportation. Most of those employees are helpers, laborers, material movers, food and beverage preparation workers, truck drivers, machine operators, assemblers, and craft workers.

Table 1

PERCENT OF EMPLOYMENT GROWTH
ARIZONA

Years and Quarters	Temporary Employment*	Total UI-Covered Employment
1977-2 to 1978-2	-2.7%	27.8%
1978-2 to 1979-2	25.3	9.7
1979-2 to 1980-2	6.1	3.2
1980-2 to 1981-2	6.7	2.1
1981-2 to 1982-2	13.2	-0.7
1982-2 to 1983-2	32.4	3.5
1983-2 to 1984-2	49.7	9.8
1984-2 to 1985-2	17.3	8.4
1985-2 to 1986-2	3.2	4.8
1986-2 to 1987-2	17.9	3.9

* Includes permanent personnel who operate agencies.

SOURCE: DES Research Administration.

Table 2

UI-COVERED TOTAL, SERVICES, AND TEMPORARY EMPLOYMENT
ARIZONA

	1977-2	1982-2	1977-82 % Change	1987-2	1982-87 % Change
Total Employment	703,679	1,031,436	46.6	1,382,836	34.1
Services	146,408	213,282	45.7	327,108	53.4
Temporary*	3,885	6,071	56.3	17,174	182.9
Total Firms	44,128	58,570	32.7	76,785	31.1
Services	13,649	19,506	42.9	26,673	36.7
Temporary*	54	99	83.3	176	77.8
Total Payroll	$1,886,618,924	$4,173,830,535	121.2	$6,789,208,789	62.7
Services	316,513,572	716,210,093	126.3	1,398,446,183	95.3
Temporary*	4,928,205	11,382,315	131.0	45,664,160	301.2

* Includes permanent personnel who operate agencies.

SOURCE: DES Research Administration.

The temporary employment industry entered the medical market during the 1970s when many hospitals were faced with shortages of registered nurses. Today, hospitals, nursing homes, and private households obtain temporary help such as registered nurses, licensed practical nurses, nursing aides, orderlies, and attendants.

Temporary help supply firms that specialize in the engineering and technical field are often called "job shops." Job shop customers include companies in aerospace, electronics, industrial machinery, and chemicals manufacturing, and firms that contract to perform engineering services. Most of the employees are engineers, designers, drafters, engineering technicians, and computer programmers.

Sources of demand for temporary employees include:

1. Short-term changes in need of workers because of seasonal fluctuations or other factors.

2. Absence of permanent employees for vacation or illness.

3. Firms with high fringe-benefit costs.

4. Uncertainty about economic climate.

For short-term jobs, the costs to a company of recruiting and hiring an employee are higher than the markup charged by the temporary help firm. The temporary help firm can also hire more quickly because it maintains contact with large numbers of qualified personnel who are available to work on short notice. Also, if the employee is unsatisfactory, the customer can simply request another.

The demand for temporary help in the office market is usually less sensitive to seasonal and cyclical changes than is the demand for industrial or engineering and technical workers. Nevertheless, increasing office automation has led some companies to turn to temporary help project teams for assistance in the conversion from manual to automated operations. Temporary employees keep the work flow going while permanent workers learn the new system.

The Office magazine conducts a survey of its readership on the subject of temporary help services every other year. Among other questions asked in the 1986 survey was, "For what reasons do you normally use temporary help?" The responses were:

Vacation Replacement	19%
Temporary Replacement	50%
Peak Load Periods	58%
Specialized Work	19%
One-Time Projects	44%
Possible Permanency	16%
Lower Employee Cost	7%
Less Paperwork	3%

Another question was, "For what types of services do you require temporaries?" The answers were:

Data Processing	26%
Word Processing	29%
Secretarial	51%
Clerical	62%
Records Management	15%
Filing	31%
Accounting	22%
Other	16%

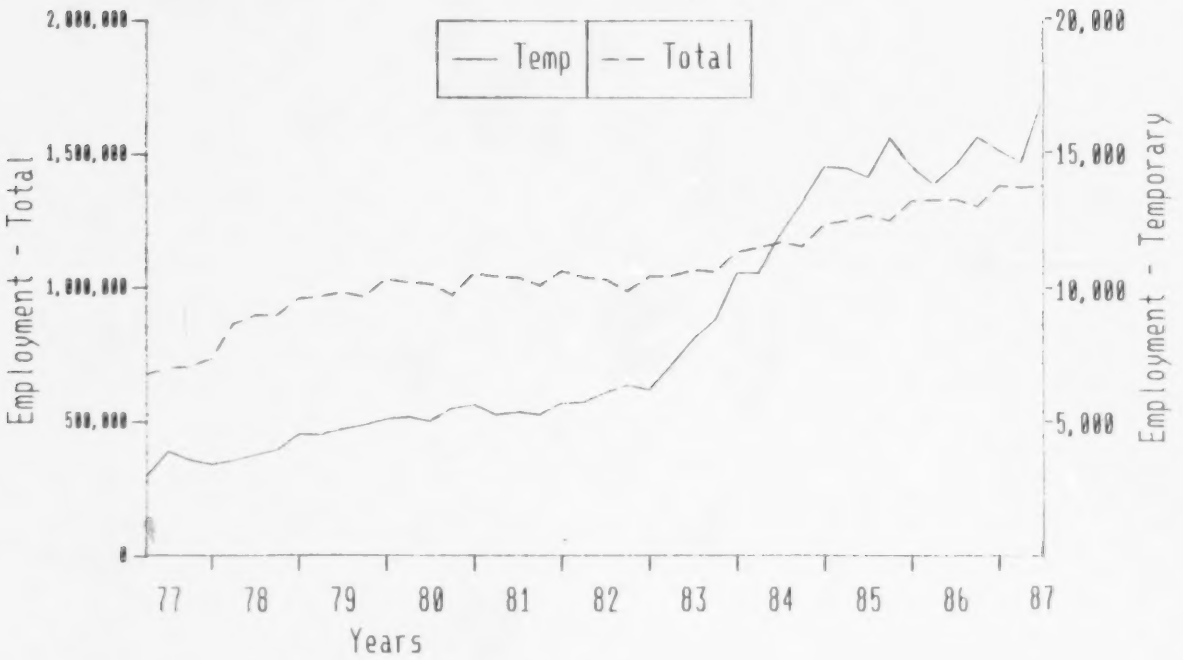
The need for medical temporaries is greatest during the summer when many regular employees take vacations and patients schedule elective surgery to coincide with their vacations.

The use of temporaries in the engineering and technical market is usually the result of major projects to develop new products or facilities. Assignments typically last from six months to a year and sometimes two years.

Many companies routinely budget for temporary workers. In fact, Modern Office Technology reported recently that 60 to 70 percent of all U.S. firms do so. The National Association of Temporary Services has found that 98 percent of U.S. companies use temporaries periodically.

Many companies maintain a "lean staffing" strategy because they cannot afford to keep on staff a complete inventory of every skill that might be needed. Temporary help allows a manager to put together a task force for a special project when needed,

Temporary Employment and Total Employment
Arizona



Source: DES Research Administration

thus helping the company to better respond to change.

The Industrial & Labor Relations Review (July 1985) published a survey indicating the types of companies most likely to use temporaries. Large firms were found to use more temporaries because the firms are more able to identify when temporaries can be used efficiently. Both declining and growing firms are more likely to use temporary workers because they can be added or removed quickly. Also, the higher the amount of fringe benefits paid to permanent workers, the more likely the firm will use temporary employees. Temporary employees usually have fewer fringe benefits than do permanent employees and therefore lower benefit costs.

Uncertainties about the economy make employers less willing to hire additional permanent staff to deal with increases in orders that they think might be only temporary. The companies save on recruitment costs, severance pay, and Unemployment Insurance tax.

To determine who are temporary employees, Wayne J. Howe conducted a study using national data from the May 1985 supplement to the Current Population Survey (CPS). Unlike Unemployment Insurance data, CPS data exclude permanent employees who staff temporary help agencies but also exclude some workers who do not view their jobs as temporary because of continuous attachment to an agency.

Comparing the composition of the temporary employment work force to that of all wage and salary employment, some differences were found. The temporary help industry had larger proportions of women, youth, and blacks than did the total work force. (See Table 3.)

Although some temporary employees seek permanent jobs, others prefer temporary work because they enjoy the schedule flexibility that allows for taking care of children or attending school.

The increase in the number of women entering the labor force has contributed to the

available pool of temporary employees. Women re-entering the work force after a lengthy absence can brush up skills, acquire job experience, and gain self-confidence.

Retirees who are unable or uninterested in a full-time employment commitment also seek temporary jobs. In addition, some employees use temporary work to keep their skills up to date or to try a variety of employers. Some nurses have full-time jobs and moonlight to supplement their income.

Others who seek temporary employment include teachers who want to work during the summer and recent college graduates who need some kind of work until they can find employment related to their studies. The variety of assignments and geographic locations may also attract some to the temporary field.

Temporary employment can be extremely helpful to persons entering the labor force for the first time. It offers varied job experience and an opportunity for individuals to learn more about themselves, in terms of the types of work tasks and work settings they prefer. It helps them to gradually adjust to the world of work--getting along with supervisors and co-workers, punctuality, arranging for child care or transportation, and proper clothes and appearance. Temporaries also learn to quickly adapt to new situations.

Employees can choose the days and hours that they are available for work and the frequency and duration of assignments. In the medical market, however, temporaries often get the least desirable shifts.

Job-seeking can be costly in both time and money. Temporary employment firms help

Table 3

EMPLOYED WAGE AND SALARY WORKERS
UNITED STATES, MAY 1985

	All Industries	Temporary Help Supply Industry
Total, 16 years and over	100.0%	100.0%
16-24	20.1	32.7
25-54	67.4	57.6
55 and over	12.5	9.7
Men	55.0	35.8
Women	45.0	64.2
White	86.9	75.4
Black	10.4	20.2
Occupations		
Managerial and professional specialty	24.0	11.0
Technical, sales, and administrative support	31.6	52.1
Administrative support, including clerical	17.3	43.3
Service occupations	13.7	10.8
Precision production, craft, and repair	12.1	4.6
Operators, fabricators, and laborers	16.6	16.9
Farming, forestry, and fishing	2.1	4.4

SOURCE: Wayne J. Howe, "Temporary Help Workers: Who They Are, What Jobs They Hold," Monthly Labor Review, November 1986.

reduce those costs so that workers can spend more time working and less time looking for work. If a person has recently moved to an area, temporary positions assist in learning the city's layout and types of work settings available. For those temporaries who are looking for permanent jobs, temporary jobs can sometimes lead to permanent ones.

As far as pay is concerned, temporary clerical workers are generally paid relatively less than their permanent counterparts. Within the industrial market, temporaries in the least-skilled jobs are paid considerably less because of high costs associated with large turnover and transportation to the work sites. On the other hand, engineers and technicians can often earn more in temporary jobs.

Drawbacks of temporary work include some hostile co-worker and client attitudes, lack of job security, sometimes not enough assignments, and lack of fringe benefits. A temporary can feel isolated from the permanent staff--not included in office social activities, not informed of changes in work procedures, not included in staff meetings, given unpleasant tasks no one else wants to do, and not given advance notice of the end of assignments (no chance to say goodbye to co-workers).

Wren Baldwin has some tips for temporaries, including:

- Never be late.
- Dress like a professional.
- Ask questions.
- Make a chart of people's names and where they sit.
- Check out all details such as lunch hours and scheduled days.
- Be friendly and warm, but not overfamiliar.
- Remember, the employer is in charge.
- Communicate with your agency.
- Take notes on how the client operates.
- Go in with the attitude that you are only there to help.

Roberta L. Coles has the following advice for employers who use temporary help or are planning to do so:

- Provide information to the agency about your office and what its needs are. The worker will need to know dress expectations, parking availability, and directions to the work site.
- Provide a brief orientation when the worker arrives. Keep in mind that temporary work is like starting a new job every day. Have a permanent worker make sure that the temporary has break or lunch plans and an occasional conversation.
- Have proper equipment available.
- Have work ready.

William Olsten, of the Olsten Corporation, offers these tips for success with temporaries:

- Alert the staff.
- Prepare a work area.
- Extend a warm welcome.
- Explain the job.
- Assign a short-term mentor.
- Do not expect the impossible.

The temporary employment industry is subject to some criticism, however. Disgruntled temporaries are becoming more common and vocal. In attempting to overcome some of the complaints, a few agencies have begun offering benefits packages.

Labor advocates sometimes complain that companies use temporary workers to undermine organizing drives and to break strikes. Although many temporary service agencies have a policy not to cross picket lines, the situation does occur.

Rapid growth of employment in the industry is expected to continue, although at slower rates than during the 1982-1984 period. The Research Institute for the Executive expects a 5 percent annual growth rate nationally during the next ten years. The U.S. Department of Labor projects that one out of every 12 workers in the United States will be a temporary employee by 1990.

The temporary employment industry helps distribute labor from companies or industries where demand is low to those where it is high, thus keeping people working. During poor economic times, temporary employment helps reduce unemployment and contributes to the tax base. As of the second quarter of 1987, the industry in Arizona was providing a payroll of over $45 million.

While demand for temporary clerical workers is still high, requests for executives, professionals, and technicians are growing even faster. Automation should increase demand for temporary computer operators, peripheral equipment operators, and secretaries and typists who can operate word processors and personal computers. There may be fewer orders for file clerks, mail clerks, and data entry keyers.

The temporary help industry continues to grow and change. It may lead to eventual restructuring of staffing patterns in various industries and shifting of employment between industries.

Barbara Keene

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The Arizona Labor Force in December

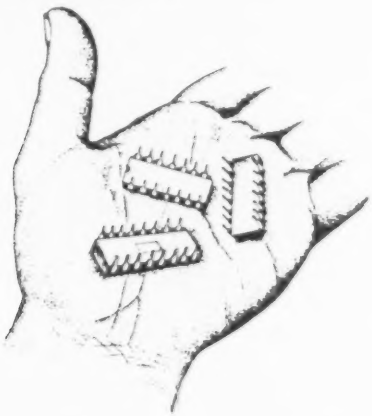
The year of 1987 ended in Arizona with a December unemployment rate of 5.7 percent, down more than a percentage point from a year earlier, and unchanged from November. Unemployment rates were static for the month in Maricopa and Pima counties as well, at 4.9 and 4.7 percent, respectively.

With December employment statistics in, it is tempting to look at over-the-year growth and compare it to the previous years of recovery from the 1982 recession. Those comparisons, however, are better postponed to next month when all of 1987's estimates are available annually benchmarked in

relation to employers' reports to the Unemployment Insurance Administration.

All things considered, December 1987 was not a bad month. Total residency-based employment climbed by 4,000, and 5,800 wage and salary jobs were added. December's total employment gain was more than twice that of December of last year (1,800) and almost as good as in December 1985 (4,300). Similar things can be said about wage and salary employment gains (3,800 in December 1986 and 5,900 in December 1985).

Naturally, the big gainer during December was the retail trade sector. Nevertheless, the 3,300 rise was the smallest for retail trade in Arizona since December 1982. Services had a similar weak gain of 1,100, a hundred less than in recessionary 1982. Business services which includes temporary help agencies gained 400, and health services, gearing up for the larger winter population, added 500.



The really good news came in the manufacturing industry. Overall, it gained 500, and 300 of that was in the machinery-manufacturing segment. Machinery employment gains were consistent with news from the semiconductor industry that orders were increasing. In fact, the semiconductor industry reported that it had the best month of increasing orders in three years. Its book-to-bill ratio stood at 1.13. The amount of December employment gain was also the best since December 1984. At last, there seems to be improvement in sales stemming from increasing demand for personal computers and from the falling value of the dollar relative to foreign currencies.

Another industry group helping to boost wage and salary employment growth was transportation, communications, and public utilities (TCPU). The TCPU group added 900, mostly in the transportation component. Although seasonal gains in transportation are normal in December when so many are traveling home for the holidays, it was still the best December gain since 1983.

Among all the industries, construction continued to stand out as the biggest loser. It dropped another 1,300 in December, taking it down more than 10,000 over the year and 19,000 from peak employment in July 1986, ending at a level of 98,200. Although falling mortgage rates may cause some construction improvement in the next few months, there is little reason to believe the industry will return to the levels it attained in 1986. Even holding near to the 100,000 level would be doing well. If the Federal Reserve is forced by the falling dollar to boost interest rates, the trend in construction employment will continue downward.

Central banks in the Group of Seven nations assisted the United States during the week of January 11 by buying dollars. Their intention was to stabilize the dollar and convince investors that the dollar's value relative to the currencies of other industrialized countries had fallen as far as it would go. Whether or not their action will have a long-term effect still is not certain. Recent information that the U.S. deficit foreign trade balance has diminished will help stabilization and perhaps reduce long-term loan interest rates. All of these events may help the construction industry in the months ahead.

Among the rural counties, Apache County's unemployment rate rose to 14.4% edging out Yuma County's 12.3% as the state's highest rate. Yavapai County's rate remained the lowest in rural Arizona at 5.4 percent.

Next month we will look back over the year and determine how accurate our estimates have been. In addition, we will have forecasts for 1988 and 1989 developed from benchmarked 1986, 1987, and earlier data.

Ron Simon

Arizona Labor Force and Employment

December 1987 (in thousands)

	ARIZONA					MARICOPA COUNTY					PIMA COUNTY				
	Dec.* 1987	Nov. 1987	Dec. 1986	-- Amt Change -- Nov. to Dec.	-- Amt Change -- 1986 to 1987	Dec.* 1987	Nov. 1987	Dec. 1986	-- Amt Change -- Nov. to Dec.	-- Amt Change -- 1986 to 1987	Dec.* 1987	Nov. 1987	Dec. 1986	-- Amt Change -- Nov. to Dec.	-- Amt Change -- 1986 to 1987
TOTAL CIVILIAN LABOR FORCE**	1681.5	1678.1	1626.9	+3.4	+54.6	1045.6	1044.4	1011.4	+1.2	+34.2	327.1	325.5	314.0	+1.6	+13.1
Total Unemployment	93.2	93.8	108.3	-0.6	-15.1	49.3	49.7	57.0	-0.4	-7.7	15.1	15.3	18.2	-0.2	-3.1
Rate	5.5	5.6	6.7	---	---	4.7	4.8	5.6	---	---	4.6	4.7	5.8	---	---
Rate (Sea. Adj.)***	5.7	5.7	6.9	---	---	4.9	4.9	5.8	---	---	4.7	4.7	5.9	---	---
Total Employment	1588.3	1584.3	1518.6	+4.0	+69.7	996.3	994.7	954.4	+1.6	+41.9	312.0	310.2	295.8	+1.8	+16.2

The Above Labor Force Statistics Should Not Be Used for Economic Assistance Programs

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1402.9	1397.1	1378.7	+5.8	+24.2	923.5	920.3	907.0	+3.2	+16.5	250.2	248.5	244.4	+1.7	+5.8
Manufacturing	187.0	186.5	185.5	+0.5	+1.5	136.0	135.5	133.1	+0.5	+2.9	30.4	30.3	31.1	+0.1	-0.7
Durable Goods	145.3	145.1	144.6	+0.2	+0.7	106.9	106.7	105.2	+0.2	+1.7	25.0	25.0	25.8	+0.0	-0.8
Stone, Clay and Glass	7.2	7.4	8.0	-0.2	-0.8	4.5	4.6	5.2	-0.1	-0.7					
Primary and Fabricated Metals	15.4	15.5	16.1	-0.1	-0.7	10.4	10.4	10.8	+0.0	-0.4					
Primary Metals	7.2	7.3	7.6	-0.1	-0.4										
Fabricated Metals	8.2	8.2	8.5	+0.0	-0.3										
Machinery	65.3	65.0	64.2	+0.3	+1.1	52.0	51.8	50.9	+0.2	+1.1					
Other Durable Goods	57.4	57.2	56.3	+0.2	+1.1	40.0	39.9	38.3	+0.1	+1.7					
Aircraft and Missiles	26.7	26.6	27.5	+0.1	-0.8										
Lumber and Wood Products (Except Furniture)	8.4	8.4	8.0	+0.0	+0.4										
All Other Durable Goods	22.3	22.2	20.8	+0.1	+1.5										
Nondurable Goods	41.7	41.4	40.9	+0.3	+0.8	29.1	28.8	27.9	+0.3	+1.2	5.4	5.3	5.3	+0.1	+0.1
Food and Kindred Products	9.2	9.2	9.0	+0.0	+0.2	6.2	6.2	6.1	+0.0	+0.1					
Apparel	4.5	4.4	4.9	+0.1	-0.4	3.2	3.1	3.0	+0.1	+0.2					
Printing and Publishing	16.2	16.3	15.7	-0.1	+0.5	11.3	11.4	11.1	-0.1	+0.2					
All Other Nondurable Goods	11.8	11.5	11.3	+0.3	+0.5	8.4	8.1	7.7	+0.3	+0.7					
Mining and Quarrying	11.3	11.3	11.0	+0.0	+0.3	0.6	0.6	0.6	+0.0	+0.0	1.7	1.7	1.6	+0.0	+0.1
Copper Mining	8.5	8.5	8.3	+0.0	+0.2										
Other Mining and Quarrying	2.8	2.8	2.7	+0.0	+0.1										
Construction	98.2	99.5	108.4	-1.3	-10.2	65.5	66.3	73.6	-0.8	-8.1	20.3	20.5	21.6	-0.2	-1.3
Trans., Communications, and Public Utilities	72.5	71.6	69.5	+0.9	+3.0	49.0	48.6	46.6	+0.4	+2.4	10.2	10.1	9.9	+0.1	+0.3
Transportation	33.6	32.8	32.6	+0.8	+1.0	23.0	22.6	22.1	+0.4	+0.9	5.1	5.0	5.0	+0.1	+0.1
Communications and Public Utilities	38.9	38.8	36.9	+0.1	+2.0	26.0	26.0	24.5	+0.0	+1.5	5.1	5.1	4.9	+0.0	+0.2
Trade	344.9	340.9	340.0	+4.0	+4.9	234.0	232.0	233.0	+2.0	+1.0	57.7	56.5	55.6	+1.2	+2.1
Wholesale Trade	65.4	64.7	64.3	+0.7	+1.1	51.4	51.1	51.4	+0.3	+0.0	7.9	7.8	7.5	+0.1	+0.4
Retail Trade	279.5	276.2	275.7	+3.3	+3.8	182.6	180.9	181.6	+1.7	+1.0	49.8	48.7	48.1	+1.1	+1.7
General Merchandise and Apparel	49.2	47.4	47.8	+1.8	+1.4	32.4	31.3	31.7	+1.1	+0.7	8.4	8.0	7.9	+0.4	+0.5
Food Stores	45.4	44.9	43.7	+0.5	+1.7	29.8	29.4	28.7	+0.4	+1.1	7.4	7.3	7.1	+0.1	+0.3
Automotive and Service Stations	31.9	32.0	31.7	-0.1	+0.2	19.8	20.0	20.2	-0.2	-0.4	5.5	5.4	5.3	+0.1	+0.2
Eating and Drinking Places	96.3	95.5	95.4	+0.8	+0.9	61.6	61.1	61.3	+0.5	+0.3	18.4	18.1	18.1	+0.3	+0.3
Other Retail Trade	56.7	56.4	57.1	+0.3	-0.4	39.0	39.1	39.7	-0.1	-0.7	10.1	9.9	9.7	+0.2	+0.4
Finance, Insurance, and Real Estate	91.2	91.5	91.4	-0.3	-0.2	71.9	72.1	72.2	-0.2	-0.3	12.6	12.7	12.5	-0.1	+0.1
Services and Miscellaneous	345.9	344.8	334.2	+1.1	+11.7	233.4	232.6	225.1	+0.8	+8.3	64.6	64.4	61.5	+0.2	+3.1
Hotels and Other Lodging Places	35.8	35.7	33.4	+0.1	+2.4	20.3	20.1	19.3	+0.2	+1.0	6.5	6.4	5.7	+0.1	+0.8
Business Services	75.9	75.5	73.6	+0.4	+2.3	60.9	60.5	58.9	+0.4	+2.0	11.2	11.2	11.0	+0.0	+0.2
Health Services	86.2	85.7	82.9	+0.5	+3.3	56.5	56.2	54.2	+0.3	+2.3	18.4	18.3	17.4	+0.1	+1.0
Other Services	148.0	147.9	144.3	+0.1	+3.7	95.7	95.8	92.7	-0.1	+3.0	28.5	28.5	27.4	+0.0	+1.1
Government	251.9	251.0	238.7	+0.9	+13.2	133.1	132.6	122.8	+0.5	+10.3	52.7	52.3	50.6	+0.4	+2.1
Federal	42.8	42.6	41.6	+0.2	+1.2										
State and Local	209.1	208.4	197.1	+0.7	+12.0										
School	125.4	124.1	117.3	+1.3	+8.1										

* Preliminary
** Labor force, unemployment, and employment are reported by place of residence.
*** Normal seasonal variations have been eliminated to reflect underlying economic trends.
NOTE Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

-- Prepared by Arizona Department of Economic Security,Research Administration (CPS, 1/87)

Nonmetropolitan Counties
Labor Force and Employment
December 1987

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	15,657	36,275	42,825	12,850	8,650	3,200	5,025
Total Unemployment	2,175	2,925	3,625	1,550	825	325	400
Rate	13.9%	8.1%	8.5%	12.1%	9.5%	10.2%	8.0%
Rate (Seas. Adj.)**. . . .	14.4%	8.1%	8.1%	11.6%	9.6%	11.0%	-INA-
Total Employment	13,500	33,350	39,200	11,300	7,825	2,875	4,625
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS							
TOTAL WAGE AND SALARY. . . .	15,625	24,400	37,225	10,275	5,050	2,875	3,175
Manufacturing.	950	1,350	2,775	1,350	200	25	100
Mining and Quarrying	25	100	75	1,300	0	1,575	50
Construction	1,225	1,150	1,850	250	200	175	175
Trans., Comm., & Pub. Util..	2,175	1,425	2,375	425	175	25	100
Trade.	1,425	5,475	8,475	2,200	1,325	225	1,075
Fin., Insur., & Real Estate.	325	675	850	275	125	25	100
Services and Miscellaneous .	4,475	4,050	9,325	1,900	875	150	700
Government	5,025	10,175	11,500	2,575	2,150	625	875

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	30,325	27,500	39,125	9,975	37,750	39,575
Total Unemployment	2,200	3,175	3,475	975	2,225	4,875
Rate	7.3%	11.5%	8.9%	9.8%	5.9%	12.3%
Rate (Seas. Adj.)**. . . .	7.2%	11.9%	9.3%	10.4%	5.9%	-INA-
Total Employment	28,125	24,325	35,650	9,000	35,525	34,700
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS						
TOTAL WAGE AND SALARY. . . .	20,250	20,225	29,900	8,950	23,875	27,525
Manufacturing.	2,625	1,900	3,725	1,250	2,450	1,875
Mining and Quarrying	425	1,150	3,650	0	625	50
Construction	1,375	1,050	1,150	325	1,975	1,550
Trans., Comm., & Pub. Util..	1,175	1,750	1,175	550	900	1,050
Trade.	5,750	3,825	5,200	3,625	6,375	8,225
Fin., Insur., & Real Estate.	900	375	775	325	950	1,050
Services and Miscellaneous .	4,250	5,025	4,225	1,325	5,150	6,450
Government	3,750	5,150	10,000	1,550	5,450	7,275

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

Prepared in conjunction with the U.S. Department of Labor, Bureau of Labor Statistics.

Arizona Labor Force and Employment for Economic Assistance Programs December 1987

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,681,433	1,588,270	93,163	5.5%
Apache	15,680	13,502	2,178	13.9
Cochise	36,285	33,348	2,937	8.1
Coconino	42,837	39,209	3,628	8.5
Gila	12,841	11,288	1,553	12.1
Graham	8,649	7,836	813	9.4
Greenlee	3,207	2,877	330	10.3
La Paz	5,017	4,616	401	8.0
Maricopa	1,045,642	996,317	49,325	4.7
Mohave	30,325	28,122	2,203	7.3
Navajo	27,480	24,314	3,166	11.5
Pima	327,042	311,975	15,067	4.6
Pinal	39,107	35,638	3,469	8.9
Santa Cruz	9,980	8,996	984	9.9
Yavapai	37,769	35,534	2,235	5.9
Yuma	39,572	34,698	4,874	12.3

These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

Arizona Unemployment Insurance Activities November 1987

	November 1987	October 1987	November 1986	% Change From One Year Ago
Claimants Served*	24,139	26,052	27,464	-12.1%
Average Weeks Unemployed**	INA	9.2	9.2	INA
Benefits Paid*	$ 8,687,143	$ 9,956,760	$ 9,555,573	-9.1%
Trust Fund Balance	$423,131,996	$409,717,299	$392,072,393	7.9%

*All Programs **UI Only

INA = Information Not Available

Estimated Hours and Earnings of Production Workers in Selected Industries Arizona

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	DEC.* 1987	NOV. 1987	DEC. 1986	DEC.* 1987	NOV. 1987	DEC. 1986	DEC.* 1987	NOV. 1987	DEC. 1986
FOR THE STATE OF ARIZONA									
Manufacturing	407.54	404.60	415.66	41.0	40.5	41.4	9.94	9.99	10.04
Aircraft & Missiles	568.71	567.23	INA	44.5	43.7	INA	12.78	12.98	INA
Food & Kindred Products	366.16	367.34	389.34	39.8	40.5	42.0	9.20	9.07	9.27
Primary Metals	444.22	461.03	494.14	38.0	37.3	39.5	11.69	12.36	12.51
Machinery	414.93	390.82	383.20	40.6	39.2	40.0	10.22	9.97	9.58
Copper Mining	504.71	497.35	491.63	41.1	40.8	40.1	12.28	12.19	12.26
Construction	430.62	422.30	421.82	36.9	36.5	35.9	11.67	11.57	11.75
Utilities	619.07	637.69	623.22	42.2	43.0	43.4	14.67	14.83	14.36
Retail Trade**	244.45	241.71	240.83	32.9	32.1	32.9	7.43	7.53	7.32
Wholesale Trade	390.85	399.12	377.99	39.6	39.4	40.6	9.87	10.13	9.31

Estimated Hours and Earnings of Production Workers in Selected Industries Maricopa County

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	DEC.* 1987	NOV. 1987	OCT. 1987	DEC.* 1987	NOV. 1987	OCT. 1987	DEC.* 1987	NOV. 1987	OCT. 1987
FOR MARICOPA COUNTY									
Manufacturing	443.52	434.89	442.57	42.0	41.3	41.4	10.56	10.53	10.69
Construction	447.33	435.12	428.90	37.0	36.2	35.3	12.09	12.02	12.15
Retail Trade**	274.12	268.29	266.16	33.8	33.0	32.9	8.11	8.13	8.09
Wholesale Trade	405.82	405.97	396.15	39.4	39.3	38.8	10.30	10.33	10.21

Estimated Hours and Earnings of Production Workers in Selected Industries Pima County

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	DEC.* 1987	NOV. 1987	OCT. 1987	DEC.* 1987	NOV. 1987	OCT. 1987	DEC.* 1987	NOV. 1987	OCT. 1987
*****FOR PIMA COUNTY*****									
Manufacturing	368.28	366.66	361.53	39.6	38.8	39.0	9.30	9.45	9.27
Copper Mining	540.56	532.90	519.99	42.8	41.6	41.8	12.63	12.81	12.44
Construction	377.78	382.58	384.75	36.5	37.0	37.5	10.35	10.34	10.26
Utilities	578.51	574.98	554.55	42.6	42.0	41.2	13.58	13.69	13.46

* Preliminary
** Excludes eating and drinking places.
NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

--Arizona Department of Economic Security, Research Administration. (1972 SIC, 1/87)

LMI Publications—Hot Off the Press

The following new or recently revised publications prepared by the DES Research Administration can be ordered from the address on the back of this newsletter or by calling (602) 255-3871. One copy of each publication will be sent at no charge. Multiple copies are available at nominal charge to help cover the cost of printing. Other DES administrations can order these books directly from DES Supply.

How Does Arizona Compare? (PAL-200) presents a wide range of information to assist employers who are considering Arizona as a site for expansion or relocation of their businesses. Others who assist relocation decision makers may also find this publication useful. It provides answers to the most frequently asked questions raised by employers who have called upon the Arizona Department of Economic Security's Research Administration seeking information on topics such as labor availability, demographics, labor force, labor turnover, unionization, wages, fringe benefits, cost of living, housing, utilities, taxation, income, transportation, land, and climate. The appendix section lists the state's Job Service offices and chambers of commerce as well as other labor market information publications and external sources of information helpful to employers.

Arizona Occupational Profiles: Government (PAL-433) and Trade (PAL-440) are two in a series of publications produced from information developed by the Occupational Employment Statistics (OES) survey. The profiles, published every three years, present employment of significant occupations in the government and trade industries. In addition to current estimates, occupational projections for 1989 of the number of job openings due to growth and separations are included for the state and counties.

A new Arizona Occupational Profile: Lodging (PAL-424) has just been published for the first time. The book includes occupational employment estimates and five-year projections for occupations found in Arizona's lodging industry. Included in the lodging industry are commercial and institutional establishments engaged in providing, on a fee basis, any combination of lodging, lodging and meals, and camping facilities. Such establishments include hotels, motels, and tourist courts; rooming and boarding houses; camps and trailer parks; membership organization hotels and lodging houses; and restaurants and lunch counters operated by hotels and other lodging facilities.

The Labor Market Information Directory (PAL-158) is a guide to the wide array of socioeconomic, employment and training, career decision making, and job search publications available through Arizona's Labor Market Information (LMI) program. In the directory, publications are first arranged by subject. Following the subject guide is a complete alphabetical listing of all publications, including their description and geographic coverage. In addition, a matrix revealing the depth in which the topic is treated by most publications is presented, as well as a section on other sources of information available from the private and public sectors. Addresses and telephone numbers to request such information are provided.

New Developments

"New Developments" is featured each month as a service to employers and job seekers. It is a compilation of public announcements of the more significant new construction, grand openings, major hirings and layoffs, and other employer events that have special significance for Arizona labor markets. The announcements are paraphrased and otherwise edited from articles published in newspapers and other periodicals from throughout the state. "New Developments" is limited to space available, and no attempt is made to compile an exhaustive list of all such events that have occurred during the month.

AGRICULTURE - The Navajo Tribe, in a cooperative venture with the Bryn/Y/Madarch Co. of Virginia, is planning to set up a greenhouse at Fort Defiance to determine the feasibility of growing edible mushrooms. Although the pilot project initially will provide only two jobs, tentative plans to establish five mushroom farms throughout the reservation could create up to 125 jobs. The mushrooms will be grown in holes in oak logs.

Construction is under way on an 8,000-square-foot visitor center at the Boyce Thompson Southwest Arboretum on Highway 60, three miles west of Superior. The $750,000 center, the first phase of a multi-phase expansion plan, will be completed next summer. The arboretum is the largest cactus and desert plant garden in the world.

MANUFACTURING - Gates Learjet Corp. has recalled about 250 employees at its plants in Tucson and Wichita, Kansas, to help make two new business jets. The new Model 31 and redesigned Model 55C are scheduled for delivery starting in late 1988.

San Diego-based Universal Publishing Co. has opened a branch in Yuma at 225 South Main Street. The company publishes military base guides, maps, chamber of commerce publications, and telephone directories. The Yuma branch is expected to achieve $500,000 in sales in its first year of operation and $2 million the following year. Two more Arizona sites are being planned.

The Army has awarded a $35,092,135 contract to Hughes Aircraft Co. of Tucson for the production of TOW-2B missiles through early 1990. The company will maintain its current level of employment.

In addition, Hughes Aircraft has received a top corporate award from the Minority Business Development Agency of the U.S. Department of Commerce. The award was for "dedication, enthusiasm, cooperation, and distinguished service in promoting minority business."

McDonnell Douglas Helicopter Co. of Mesa has received a nearly $10 million contract from the Army to determine the feasibility of arming the Apache attack helicopter with Stinger air-to-air missiles. The firm will be responsible for the design, software development, and flight test of the Stinger system through August.

Also awarded to the company was a $399 million contract to build 67 Apache helicopters in fiscal 1988 and a $19 million contract for logistics and ground-support equipment to maintain the aircraft.

Nine small high-tech firms in Arizona have been awarded research contracts by the U.S. Department of Defense. The contracts, which average about $50,000, are intended to provide seed money for defense-related research and to spur technological innovations. The firms receiving the contracts are Advanced Materials Testing Co., Mesa; APTEC Inc., Scottsdale; General Pneumatics Corp., Scottsdale; Lighting Sciences Inc., Scottsdale; Materials & Electrochemical Research Corp., Tucson; QO Inc., Sierra Vista; Simula Inc., Phoenix; Space Data Corp., Tempe; and Vista Research Corp., Sierra Vista.

California-based Lifetile Corp. is building a $2.1 million facility in Casa Grande. The concrete roof tile manufacturing plant is expected to bring 50 jobs to the area in 1988. The 60,000-square-foot facility will be located at 1742 Roof Tile Road.

America-West Industries will be expanding its yarn-making facility in Yuma. When the expansion is completed, employment will be increased to about 300 from 200.

Deer Valley Block Manufacturing Inc. is building a $4 million facility at the southeast corner of 16th Street and Deer Valley Road. Initially employing 16 workers, the new plant will produce up to 250,000 blocks per week in a range of colors, sizes, and styles.

Talley Industries Inc. has established a new subsidiary, Talley Automotive Products Inc., to manufacture automobile air bags. Employing 150 to 200 people when it begins production in mid-1988, the company will operate out of a new $16 million facility

near Falcon Field in Mesa. Annual revenues from air-bag products are expected to exceed $140 million by 1990.

Honeywell Bull is cutting its Phoenix work force by 800 employees as part of a major restructuring of U.S. operations. The company will no longer manufacture mainframe computers at its Deer Valley plant. Engineering, marketing, and other management functions will continue in the Valley. In fact, the company plans to hire an additional 125 software engineers by the end of 1988. The reduction of employees will be accomplished over the year by attrition, early retirement, and voluntary and involuntary layoffs.

The Taiwan Cotton Finishers Association is planning to build a finishing plant in Arizona in the next two or three years. The plant will employ 200 to 300 people.

RECREATION - Brunswick Recreation Centers is building a $4 million, 40-lane bowling center at Ray and Price roads in Chandler. Completion is scheduled for May 1988.

Pleasant Lanes bowling center is under construction at the southwest corner of Kyrene Road and Chandler Boulevard in Chandler. The 40-lane facility will employ about 50 people.

Scottsdale Lakes Golf Club, a $6 million golf course, is under construction. The 160-acre course is part of a planned 200-acre resort that includes a hotel, a sports facility, and residential development. Scheduled for completion in Fall 1988, the course is located on the Indian Bend Wash and Interceptor Canal on both sides of Hayden Road.

Construction will begin soon on a $5 million golf course at the Pointe at Tapatio Cliffs. The 18-hole championship golf course, scheduled for completion in December 1988, is being built on 166 acres at 11111 North Seventh Street.

HOSPITALS - The Lutheran Health Care Network cut 32 managerial, supervisory, and support-service positions in October at its Mesa Lutheran and Valley Lutheran hospitals in Mesa as part of a cost-reduction program. Twenty-one positions in the marketing and finance departments were cut in September in addition to the equivalent of 23.7 full-time positions cut earlier in the year.

Construction is expected to begin soon on the new 160-bed Phoenix Children's Hospital. The hospital has been leasing beds in Good Samaritan Medical Center. The new building could cost between $25 million and $30 million.

INCOME - According to the U.S. Department of Commerce, personal income in Arizona grew 57.6 percent between the third quarter of 1982 and the second quarter of 1987. Arizona had the highest rate of personal income growth in the nation, followed by Georgia, 54.4 percent, and New Hampshire, 53.8 percent.

TRIBAL JOBS - The Navajo Tribal Council has approved an $87 million budget that will create 130 new jobs in the areas of economic development and education. The new jobs, however, will be partially offset by the elimination of 77 jobs in other programs.

EDUCATION - The Osborn Elementary School District will be building a $5 million middle school at the Grandview School campus, 12th Avenue and Camelback Road. Construction will begin in the late spring or early summer and will be completed by the fall of 1989.

A new $5 million building is under construction for the Center for Creative Photography at the University of Arizona. The three-story, 50,000-square-foot building is expected to open in the spring of 1989.

REAL ESTATE - Conventry Homes has recently opened three developments in the Valley. The Glen at Meadowbrook is a subdivision located at 99th Avenue and Campbell. When completed, 102 two- to five-bedroom homes will be available, ranging in size from 1,963 to 2,583 square feet. Features will include two-car garages, masonry fences, and finished or unfinished basements.

Newport at Mountainside is a planned community of family basement homes at 42nd Street, south of Chandler Boulevard in Phoenix. The subdivision will contain 109 three- to five-bedroom homes. Prices will range from $98,950 to $117,950.

The Harbor Club at Ocotillo is a subdivision of single-family homes at Queen Creek and Price roads in Chandler. The community will consist of 93 three- to five-bedroom homes, featuring basements and heat pumps. Prices will range from $129,950 to $152,950.

Warner Ranch Place, a residential development of 190 homes, has been opened by UDC Homes between Warner and Ray roads in Tempe, near the intersection of Rural Road. The three- to five-bedroom homes are priced from $118,500 to $154,500.

Coscan Arizona Inc. has opened Royal Palms, a subdivision on McClintock Drive south of Elliot Road in Tempe. The 65 Spanish-style homes range in price from $142,990 to $172,990. Standard features of the four- and five-bedroom houses include family rooms, fireplaces, vaulted ceilings, and covered patios.

Trade Winds at Twelve Oaks has been opened by Trade Winds Development and Construction Inc. at Rural Road and Chandler Boulevard in Chandler. The subdivision features single-family homes in the $70,000 to $90,000 price range.

RETAIL TRADE - Walgreen Co. recently opened new stores at 5255 East Brown in Mesa, at Mountain View and Via Linda in Scottsdale, at Seventh Street and Baseline in Phoenix, and at 19th Avenue and Union Hills in Phoenix. Within the year, stores will also open at 32nd Street and Thunderbird and at 43rd Avenue, both in Phoenix. A typical Walgreen's store employs 30 people.

Six new Dallas-based Tony Roma's restaurants, called Tony Roma's A Place for Ribs, will be opening in the Valley. The first of the restaurants, which specialize in barbecued items, has opened at 1837 West Guadalupe Road in Mesa.

Fry's Food Stores of Arizona Inc. has opened new stores at 4422 East University in Mesa and at 7435 West Cactus in Peoria. The company will start construction on another site in late 1988 at 91st Avenue and Olive. A future site is also planned for the southwest corner of Warner Road and Cooper. Average construction cost is $1.5 million per store.

Earnhardt Jeep-Eagle has opened a dealership at 3300 North Scottsdale Road in Scottsdale. The 5.5-acre facility houses from 500 to 600 new and used vehicles and employs about 100 workers.

Bashas' Markets Inc. has opened two grocery stores in Mesa, one in Chandler, and one in Snowflake-Taylor. Expected to open in 1988 are stores in Payson, Glendale, and Window Rock. A typical store employs 85 to 95 employees. Prototypes for future development, the Mesa stores include larger aisles, a service kiosk, a salad bar, a dining area for 40 customers, more than 100 bins of bulk items, self-service bins of baked goods, a floral shop, a card and magazine shop, a video shop, and other departments.

The Window Rock store will be part of a shopping center that will include a variety store, a fast-food restaurant, and several Navajo businesses. Ground breaking is expected in February.

The $4 million Islands Plaza Shopping Center at McQueen and Warner roads in Gilbert is under construction. The 100,000-square-foot center will house an ABCO Market, a Revco Drug, a daycare center, and other retail shops.

Under construction at 35th Avenue and Greenway in Phoenix is Rancho Encanto Plaza. The $3 million, 71,500-square-foot center will include an ABCO Market, Thrifty Drug, and three retail shops.

Pep Boy's Inc. of Los Angeles is planning to open four more stores in the Valley by the end of 1988, bringing the total to 21 stores in Arizona. Each store is designed to be a one-stop shopping automotive supply store.

CONSTRUCTION - Loup-Miller Cos. of Denver is building an $11 million apartment complex in Chandler. The 252-unit complex, at the northwest corner of Alma School Road and Summit Place, is scheduled to open in October 1988. The company plans to develop up to ten projects in the Valley in the next few years.

Construction has begun on Summit East, a residential community south of Shea and Fountain Hills boulevards. Scheduled to open in early 1989 are an 18-hole golf course and a clubhouse.

The 3800 Tower, formerly the Del E. Webb building, is undergoing a $6 million renovation. Work on the 17-story building, at 3800 North Central Avenue in Phoenix, will include reglazing, adding a roof pyramid, constructing a grand entry, creating a clock tower, refurbishing the lobby, redesigning restrooms, and improving access to tenant/visitor parking.

The Arizona Department of Transportation has awarded a $5.2 million contract to Pulice Construction Inc. for a road and bridge project near Holbrook. The bridge will span the Little Colorado River at State Route 77.

Cottage Development Co. will be constructing 31 cottages in the Forest Highlands development. Located six miles south of Flagstaff, east of U.S. Highway 89A, the two- and three-bedroom homes will range in size from 1,636 to 2,485 square feet.

Construction is beginning on the first phase of a 120,000-square-foot office, retail, and industrial center in Tucson. The four buildings, totaling 78,560 square feet, will be located near Euclid Avenue and East Broadway.

A 72,000-square-foot, three-story office building will be built at Virginia and First avenues in Phoenix. Construction of the $11 million project will begin in April.

Signature Homes has broken ground for the development of 57 single-family detached homes east of Price Road and south of Queen Creek Road. Priced between $124,000 and $175,000, the homes will have a classical mediterranean design.

ARIZONA BUSINESSES - Forbes magazine has named PCS Inc. of Scottsdale as the fifth-best-performing small company in the nation based on average annual return on equity. PCS, a clearinghouse for payment of prescription-drug claims, had an average return of 54.3 percent during the latest 12-month period and sales of $59.6 million. The company currently employs 650 people and plans to add about 125 jobs within the year.

Forbes had evaluated more than 5,000 companies with sales between $1 million and $315 million. The top firm was Value Line of New York.

HOTELS - The Lexington Hotel is under construction in Tempe. The 130-suite hotel is being built east of Elliot Road and Interstate 10.

Ground has been broken on the $8 million Days Inn at 7026 East Main Street in Mesa. Scheduled to open in fall 1988, the 160-room hotel will feature 40 suites, 120 rooms, and 1,900 square feet of meeting and banquet space.

COPPER MINING - Inspiration Consolidated Copper Co. is putting in a $5 million improvement to its electrical system used in copper recovery and refining at the open-pit mine near Miami. The new system, operating on an alternating current of 60 cycles per second, will replace the outdated 25-cycles-per-second equipment, thus lowering operating costs. Most of the components being replaced are at least 62 years old.

Inspiration will also be spending $15 million on its Globe facility in order to increase copper production from leach-solvent extraction and reduce its costs. The expansion is expected to result in a 25 percent increase in copper production and a five-cent-per-pound reduction in expenses. The company produces 100 million pounds of copper annually through the solvent-extraction process.

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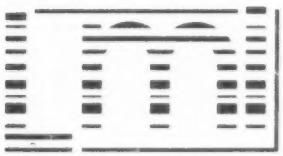

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ARIZONA LABOR MARKET INFORMATION NEWSLETTER

Vol. XII No. 3
March 1988

Unemployment Rate

Seasonally Adjusted
January*

ARIZONA	5.7%
Maricopa Co.	4.8%
Pima Co.	4.8%
UNITED STATES	5.8%

Consumer Price Index

National-December 1987
1967 - Base Year

Wage Earner/Clerical Worker - 340.2
% Chg. Yr. Ago 4.5

All Urban - 345.7
% Chg. Yr. Ago 4.4

Phoenix-4th Qtr. 1987
1977 - Base Year

All Urban - 202.7
% Chg. Yr. Ago 4.7

Tucson-4th Qtr. 1987
1st Qtr. 1983 - Base Qtr.

All Urban - 121.7
% Chg. Yr. Ago 4.6

* Preliminary

Arizona Outlook

The Annual Forecast Issue

It is that time of year again when we look into our crystal ball and forecast Arizona's employment and unemployment for the years ahead. The most important information that our crystal ball needs is past employment data.

The Arizona Department of Economic Security (DES) Research Administration cooperates with the U.S. Bureau of Labor Statistics (BLS) in various federal programs. Most important of those are the Current Employment Statistics (CES) program and the ES-202 program. The CES program estimates nonagricultural wage and salary employment every month, while the ES-202 program counts the actual number of those employed. Employers covered by Unemployment Insurance report ES-202 data quarterly by Standard Industrial Classification (SIC) code. The actual ES-202 data lag the CES estimates by about two quarters. Early each year, the CES employment estimates are adjusted to ES-202 employment. This process, in which the CES monthly estimates are aligned with the ES-202 actual count of employment, is called "benchmarking." Employment statistics are revised or benchmarked for the prior two years. (Data for 1986 and 1987 have recently been benchmarked.) The revised data are compiled in the Arizona Employment Forecasting Model (AEFM).

Arizona Department of Economic Security
— Moving People Toward Self-Sufficiency

Table of Contents

Arizona in 1987	2
Employment Forecasts for 1988-1989	4
Forecasts Assumptions and National Variables	4
Arizona	5
Maricopa County	8
The Arizona Labor Force in January	11
Arizona Labor Force Statistics	12
Forecast Continuation	17
Pima County	17
Nonmetropolitan Counties	19
LMI Publications--	
Hot Off the Press	22
New Developments	22

Barbara Keene, Editor
Linda Van Calcar, Word Processor

AEFM is an econometric model of employment and unemployment in Arizona, Maricopa County, Pima County, and the balance of the state. The model is structured such that the state is the summation of the three substate regions. Each year, Research Administration economists update and modify the model to better forecast the economy. The primary purpose of the forecasts is to aid and improve the planning of DES administered programs. The forecasts, however, can be of value to others in the private and public sectors who are interested in the economy of Arizona. Since the immediate past has significant bearing on the immediate future, the next section looks at 1987.

Jalal Ahmad

Arizona in 1987

Revised "benchmarked" statistics reveal that, during 1987, a total of 50,000 new resident workers were added to the employment base while 8,000 residents left the unemployment rolls. As a result, the statewide annual average unemployment rate fell to 6.3 percent in 1987 from an annual average rate of 6.9 percent in 1986. The drop in the number of unemployed can be due to a number of reasons. For example, as employment opportunities become tight, discouraged job seekers leave the labor force temporarily. Secondly, many may leave the state for better opportunities elsewhere. Final numbers suggest that both of these factors had negative influence on our labor force growth. Arizona's labor force grew by a modest rate of 2.7 percent in 1987 compared to 6.4 percent in 1986.

Modest growth was also registered in nonagricultural employment by place of work. Nonagricultural wage and salary employment increased by a modest rate of 3.4 percent last year. About 45,900 wage and salary jobs were added, 13,300 fewer than were added in 1986. The reduced rate of growth from the previous year was due to the poor performance of the manufacturing industry and the rapid decline in construction employment.

The industries that performed well were services; trade; transportation, communications, and public utilities (TCPU); and finance, insurance, and real estate (FIRE). Services and trade added 34,000 new jobs out of the total 45,900 jobs added in 1987. These two population- and tourist-serving industries continue to grow as long as new residents and visitors come to the state. TCPU as a group outpaced all other industries in terms of growth rates. It grew by nearly 10 percent and added 6,100 jobs. Most of the growth in this industry took place in trucking, mostly to support wholesale trade. FIRE grew by 6.2 percent this year after two years of nearly double-digit growth. The rate of growth has fallen from the previous year because of the maturing reaction to deregulation of the finance industry and the declining construction industry.

The revised statistics also reveal that the mining industry has responded positively to increases this year in the price of copper and added 400 new jobs in 1987. This was the first increase in employment after five years of continuous decline.

It is remarkable that the nonmetropolitan counties together grew at a faster rate

LABOR FORCE GROWTH
(Annual Averages, In Thousands)

	Arizona				Maricopa County			
	1986	1987	Change	%	1986	1987	Change	%
Labor Force	1,572.0	1,614.0	42.0	2.7	973.3	1,001.1	27.8	2.9
Unemployed	109.0	101.0	-8.0	-7.3	54.3	52.1	-2.2	-4.1
Unemployment Rate	6.9%	6.3%	-0.6	---	5.6%	5.2%	-0.4	---
Total Resident Employment	1,463.0	1,513.0	50.0	3.4	919.0	949.0	30.0	3.3

	Pima County				Balance of State			
	1986	1987	Change	%	1986	1987	Change	%
Labor Force	303.0	306.6	3.6	1.2	295.7	306.3	10.6	3.6
Unemployed	17.3	15.5	-1.8	-10.4	37.4	33.4	-4.0	-10.7
Unemployment Rate	5.7%	5.1%	-0.6	----	12.6%	10.9%	-0.7	----
Total Resident Employment	285.7	291.1	5.4	1.9	258.3	272.9	14.6	5.7

WAGE AND SALARY EMPLOYMENT GROWTH
(Annual Averages, In Thousands)

	Arizona				Maricopa County			
	1986	1987	Change	%	1986	1987	Change	%
Total Wage and Salary Employment	1,337.8	1,383.7	45.9	3.4	882.6	912.7	30.1	3.4
Manufacturing	184.6	187.2	2.6	1.4	132.3	135.7	3.4	2.6
Mining	11.0	11.4	0.4	3.6	0.5	0.6	0.1	20.0
Construction	113.1	102.4	-10.7	-9.5	78.7	69.2	-9.5	-12.1
TCPU*	65.9	72.0	6.1	9.3	43.9	49.0	5.1	11.6
Trade	325.6	339.5	13.9	4.3	222.6	230.9	8.3	3.7
FIRE**	88.9	94.4	5.5	6.2	70.4	74.8	4.4	6.3
Services	323.8	343.9	20.1	6.2	218.0	231.6	13.6	6.2
Government	225.0	232.9	7.9	3.5	116.3	120.9	4.6	4.0

	Pima County				Balance of State			
	1986	1987	Change	%	1986	1987	Change	%
Total Wage and Salary Employment	239.6	243.8	4.2	1.8	215.6	227.2	11.6	5.4
Manufacturing	31.6	31.0	-0.6	-1.9	20.7	20.5	-0.2	-1.0
Mining	1.7	1.6	-0.1	-5.9	8.8	9.2	0.4	4.5
Construction	21.4	19.5	-1.9	-8.9	13.0	13.7	0.7	5.4
TCPU*	9.2	9.5	0.3	3.3	12.7	13.5	0.8	6.3
Trade	53.7	55.2	1.5	2.8	49.3	53.4	4.1	8.3
FIRE**	12.1	12.7	0.6	5.0	6.4	6.9	0.5	7.8
Services	61.3	64.6	3.3	5.4	44.5	47.7	3.2	7.2
Government	48.6	49.6	1.0	2.1	60.2	62.4	2.2	3.7

* TCPU = Transportation, Communications, and Public Utilities.
** FIRE = Finance, Insurance, and Real Estate.

NOTE: Totals may not add due to rounding.

NONMETROPOLITAN COUNTIES
WAGE AND SALARY EMPLOYMENT GROWTH
(Annual Averages, In Thousands)

County	1986	1987	Change	Growth Rate
Apache	14,900	15,225	325	2.2%
Cochise	23,850	24,700	850	3.6
Coconino	35,675	38,450	2,775	7.8
Gila	9,800	10,250	450	4.6
Graham	4,700	4,825	125	2.7
Greenlee	2,800	3,175	375	13.4
La Paz	2,950	3,175	225	7.6
Mohave	19,375	21,400	2,025	10.5
Navajo	19,375	19,800	425	2.2
Pinal	27,275	28,900	1,625	6.0
Santa Cruz	8,350	9,075	725	8.7
Yavapai	22,450	23,525	1,075	4.8
Yuma	24,225	25,725	1,500	6.2

than the metropolitan counties. In 1987, wage and salary employment in the nonmetropolitan counties grew by 5.4 percent, whereas in Maricopa County it grew by 3.4 percent, followed by 1.8 percent growth in Pima County. This is because the majority of the new construction and manufacturing employment that led the recovery was in the metropolitan areas. As these industries, especially construction, experienced negative growth, the metropolitan areas suffered the greater losses.

Growth, however, was not homogeneous throughout the nonmetropolitan counties. Wage and salary employment growth rates ranged from 2.2 percent in Apache and Navajo counties to 13.4 percent in Greenlee County. Generally speaking, the nonmetropolitan counties having manufacturing and tourism as their base contributed the most toward higher state growth.

Overall, 1987 was not a bad year, but also not a good year, as it continued through the fifth year of recovery from the last recession. Before looking ahead to 1988 and beyond, assumptions behind our forecasts are explained and pertinent national events are highlighted.

Jalal Ahmad

Employment Forecasts for 1988 and 1989

Forecast Assumptions and National Variables

In recent years, the economy of Arizona has diversified its industrial base, although agriculture still plays an important role in the local economy. Because of this diversity, the national economy directly influences our economy. So to forecast Arizona's economy into the future, a few key assumptions must be made. Accordingly, assumptions were made regarding a few national economic variables and were incorporated into the Arizona Labor Market Econometric Model to forecast employment in Arizona during the next two years. The key assumptions are explained in the following.

Real Gross National Product (GNP) is expected to grow at a moderate rate of 2.0 percent in both 1988 and 1989, and much of the growth this year should occur in the

second half of 1988. During this year, a compositional shift in GNP away from consumption and toward trade and investment will continue.

Inflation, as measured by change in the U.S. Consumer Price Index (CPI) for all urban consumers, is expected to increase by a moderate rate of 4 to 4.5 percent in 1988, followed by 5 to 5.5 percent in 1989.

The forecast also assumes that oil prices will become firm in the second half of 1988, followed by a small increase in 1989. The decline in the first six months of 1988 is due mainly to OPEC's failure to reach a new production limitation agreement last December.

Also, the dollar is expected to fall further and improve our trade balance in 1988 and the year after. Growth in the money supply has been moderate in the last 12 months, indicating that the Federal Reserve is pursuing a tight monetary policy. But by other measures, it is not. Periods of tight money supply are usually accompanied by a relatively flat or lower return on bonds. Currently, the return is still steep.

Interest rates in early 1988 should ease a little in response to a weak economy. But by mid-1988 accelerating economic growth, the resurgence of inflationary expectations, and continued downward pressure on the dollar are expected to lead to a policy shift by the Federal Reserve Board toward sustained credit tightening. As a result, interest rates should tend to go higher in the second part of 1988 and 1989. The Fed, however, might not tighten too much in an election year.

On the fiscal side, the Tax Reform Act of 1986 went into effect in January of 1988. The tax increase this year will mostly come from corporate profit, excise, and payroll taxes. The federal budget is unlikely to receive much attention this year. All of the tough budget questions will be pursued into 1989, although the deficit will be a key topic of debate on the campaign trail.

Jalal Ahmad

Arizona

In spite of the uncertain outlook for the national economy, Arizona's economy should continue to expand through the next two years. The rate of growth is expected to be very modest, but higher than the national average.

During the current expansion period, Arizona has consistently grown more rapidly than the national average. For example, rates of growth in Arizona wage and salary employment versus growth rates in national wage and salary employment were:

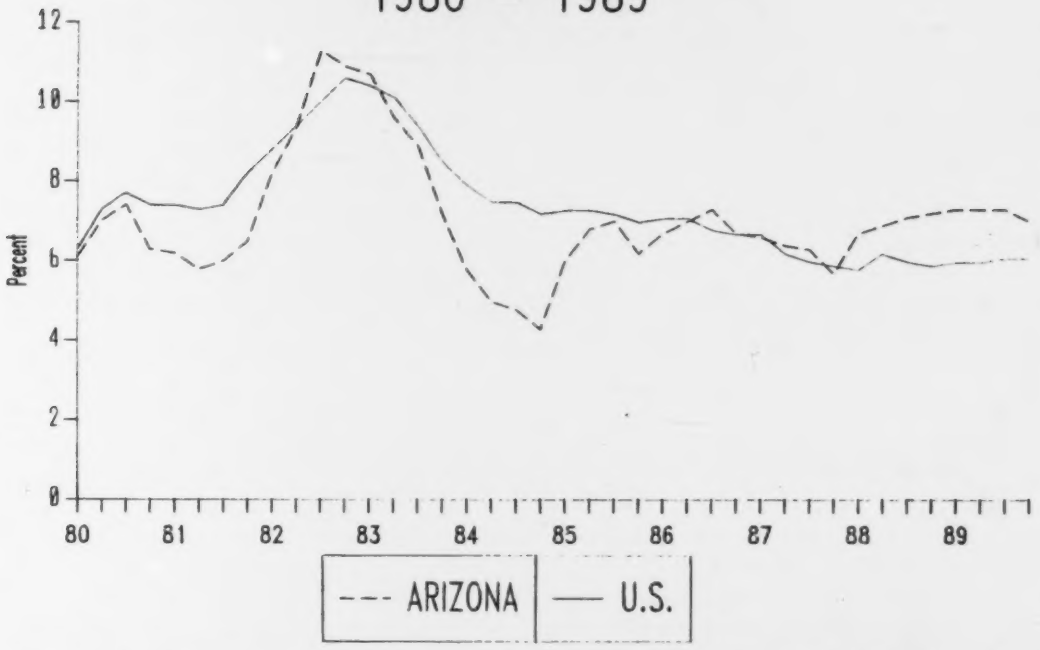
	Arizona	United States
1984	9.5%	4.8%
1985	8.1%	3.2%
1986	4.6%	2.1%
1987	3.4%	2.5%

Clearly, the gap between Arizona and U.S. growth rates has narrowed, but the factors which contributed to growth in the last four years should continue to support future economic expansion in Arizona.

Revised statistics reveal that Arizona's unemployment rate fell to an annual average rate of 6.3 percent in 1987 from 6.9 percent in 1986. The drop in the rate was due principally to slower labor force growth. The Arizona labor force grew by only 2.7 percent in 1987 compared to 6.4 percent in 1986. In the near term, however, the continued loss of construction employment and slow growth in manufacturing are expected to push the state's annual average unemployment rate to 7.0 percent in 1988, followed by a rate of 7.2 percent in 1989.

Given the weak national economy, Arizona is expected to experience wage and salary employment growth of only 3.1 percent in 1988, followed by similar growth in 1989. Reasons for slow growth in the next two years are the expected continuing decline

ARIZONA VS. U.S.
UNEMPLOYMENT RATES
1980 - 1989



in construction employment, a slow response by Arizona's manufacturing industry to the fall of the dollar in foreign exchange markets, and slower labor force growth.

In 1987, employment in the construction industry fell by 9.5 percent, continuing the trend begun in July 1986. A further decline of 9.0 percent is expected in 1988, followed by a marginal increase of 0.2 percent in 1989. Most of the loss in 1988 is expected to occur in multifamily housing and commercial building construction because vacancy rates are still reported to be very high. It is expected that employment in single-family housing construction will increase slightly during the second half of 1988, but not enough to offset losses elsewhere. Declines in mortgage rates are not expected to be large enough, or occur soon enough, to have a significant impact on the industry. Also, several heavy-construction projects are already completed, and some are near completion, which will negatively affect construction employment in 1988.

The second factor that has constrained employment growth has been the performance of manufacturing. The fall of the dollar in foreign exchange markets has stimulated the demand for American goods, and U.S. industrial production has increased. Arizona manufacturing, however, has not yet responded positively. Modest gains in electrical machinery employment have been offset by slow growth or no growth in the defense sector. It is expected that the semiconductor industry will respond positively as the dollar falls further or remains at its low level, but the positive growth will continue to be offset by the decline in defense-related employment. The outlook for defense-related employment is not positive, given the tight national budget situation. Taking all this into consideration, the manufacturing industry is expected to grow by 2.0 percent in 1988, followed by 2.8 percent in 1989.

On the positive side, enough jobs will be created by the service sector of the economy (TCPU, trade, and services) to prevent a recession from occurring in Arizona during the next two years. In 1988, a total of 43,100 new jobs should be created, followed by about 44,600 jobs in 1989.

At the substate level, Maricopa County is forecast to contribute about 26,300 new

ARIZONA ECONOMIC FORECASTS
(Annual Averages, In Thousands)

	1987	Growth Rate	1988	Growth Rate	1989	Growth Rate
Labor Force	1,614.0	2.7%	1,673.0	3.7%	1,733.3	3.6%
Unemployed	101.0	-7.3	116.5	15.4	125.4	7.6
Unemployment Rate	6.3%	----	7.0%	----	7.2%	---
Total Employment	1,513.0	3.4	1,556.5	2.9	1,607.9	3.3
Total Wage and Salary Employment	1,383.7	3.4	1,426.8	3.1	1,471.4	3.1
Manufacturing	187.2	1.4	190.9	2.0	196.2	2.8
Mining	11.4	3.6	12.0	5.3	12.4	3.3
Construction	102.4	-9.5	93.2	-9.0	93.4	0.2
TCPU*	72.0	9.3	75.2	4.4	77.2	2.7
Trade	339.5	4.3	355.3	4.7	368.0	3.6
FIRE**	94.4	6.2	96.4	2.1	98.8	2.5
Services	343.9	6.2	364.9	6.1	381.2	4.5
Government	232.9	3.5	238.8	2.5	244.2	2.3

* TCPU = Transportation, Communications, and Public Utilities.
** FIRE = Finance, Insurance, and Real Estate.

NOTE: Totals may not add due to rounding.